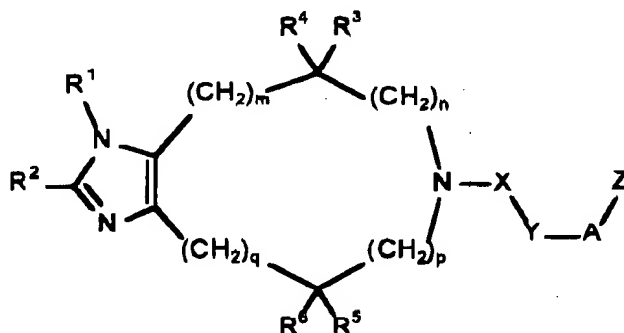


AMENDED CLAIMS

102. (amended) A compound of formula I



wherein

R¹ is hydrogen or a functional group which can be converted to hydrogen *in vivo*, wherein said functional group is selected from the group consisting of acyl, carbamoyl, monoalkylated carbamoyl, dialkylated carbamoyl, alkoxycarbonyl, C₁₋₆alkanoyl, aroyl, C₁₋₆alkylcarbamoyl, di-C₁₋₆alkylcarbamoyl, dialkylaminosulfonyl, C₁₋₆alkoxycarbonyl and 1-(C₁₋₆alkoxy)-C₁₋₆alkyl;

R² is hydrogen,

R³ and R⁴ independently are hydrogen, trifluoromethyl,

C₁₋₆-alkyl optionally substituted with C₃₋₈-cycloalkyl,

aryl optionally substituted with C₁₋₆-alkyl, or

R³ and R⁴, together with the carbon atom to which they are connected together with the carbon atom to which they are connected, form a 3 to 8-membered, saturated or unsaturated, carbocyclic or heterocyclic ring optionally substituted with C₁₋₆-alkyl,

C₁₋₆-alkoxy, C₁₋₆-alkylthio, hydroxy, amino, C₁₋₆-alkylamino, di(C₁₋₆-alkyl)amino, halogen, cyano, trifluoromethyl, trifluoromethoxy, heteroaryl, aroyl, heteroaroyl, arylsulfonyl, arylamino or heteroarylamino;

R⁵ and R⁶ are H;

m, n, p are 0, and q is 1;

D1 X is $-\text{CH}_2-$, $-\text{C}(=\text{O})-$, $-\text{C}(=\text{S})-$, $-\text{S}(=\text{O})-$, $-\text{S}(=\text{O})_2-$, $-\text{C}(=\text{N}-\text{CN})-$,
 $-\text{C}(=\text{CH}-\text{NO}_2)-$, $-\text{C}(=\text{C}(\text{CN})_2)-$, $-\text{C}(=\text{CH}-\text{CN})-$, or $-\text{C}(=\text{N}-\text{S}(=\text{O})_2\text{R}^{11a})-$,

R^{11a} is C_{1-6} -alkyl optionally substituted with

aryl, heteroaryl, aroyl, heteroaroyl, arylsulfonyl, arylamino, heteroarylamino or C_{3-8} -cycloalkyl, which are optionally substituted with

C_{1-6} -alkyl, C_{1-6} -alkoxy, C_{1-6} -alkylthio, hydroxy, amino, C_{1-6} -alkylamino, di(C_{1-6} -alkyl)amino, halogen, cyano, trifluoromethyl, trifluoromethoxy, aryl, heteroaryl, aroyl, heteroaroyl, arylsulfonyl, arylamino or heteroarylamino,

aryl, heteroaryl, aroyl, heteroaroyl, arylsulfonyl or heteroarylsulfonyl, which are optionally substituted with

C_{1-6} -alkyl, C_{1-6} -alkoxy, C_{1-6} -alkylthio, hydroxy, amino, C_{1-6} -alkylamino, di(C_{1-6} -alkyl)amino, halogen, cyano, trifluoromethyl, trifluoromethoxy, aryl, heteroaryl, aroyl, heteroaroyl, arylsulfonyl, arylamino or heteroarylamino,

Y is a valence bond, $-\text{O}-$ or $-\text{N}(\text{R}^{12})-$,

wherein R^{12} is

hydrogen,

C_{1-6} -alkyl optionally substituted with

aryl, heteroaryl, aroyl, heteroaroyl, arylsulfonyl, arylamino, heteroarylamino or C_{3-8} -cycloalkyl, which are optionally substituted with

C_{1-6} -alkyl, C_{1-6} -alkoxy, C_{1-6} -alkylthio, hydroxy, amino, C_{1-6} -alkylamino, di(C_{1-6} -alkyl)amino, halogen, cyano, trifluoromethyl, trifluoromethoxy, aryl, heteroaryl, aroyl, heteroaroyl, arylsulfonyl, arylamino or heteroarylamino,

aryl, heteroaryl, aroyl, heteroaroyl, arylsulfonyl or heteroarylsulfonyl, which are optionally substituted with

D1

C₁₋₆-alkyl, C₁₋₆-alkoxy, C₁₋₆-alkylthio, hydroxy, amino, C₁₋₆-alkylamino, di(C₁₋₆-alkyl)amino, halogen, cyano, trifluoromethyl, trifluoromethoxy, aryl, heteroaryl, aroyl, heteroaroyl, arylsulfonyl, arylamino or heteroarylamino, C₁₋₆-alkylsulfonyl optionally substituted with

C₃₋₈-cycloalkyl, C₁₋₆-alkoxy, C₁₋₆-alkylthio, hydroxy, amino, C₁₋₆-alkylamino, di(C₁₋₆-alkyl)amino, halogen, cyano, trifluoromethyl, trifluoromethoxy, aryl, heteroaryl, aroyl, heteroaroyl, arylsulfonyl, arylamino or heteroarylamino;

A is a valence bond or C₁₋₈-alkylene, C₂₋₈-alkenylene or C₂₋₈-alkynylene; and

Z is

Z is C₁₋₆-alkyl, phenyl, naphthyl, thieryl, cyclopentyl, cyclohexyl, cyclohexenyl, oxazolyl, indanyl, isoquinolyl, benzoyl or tetrahydronaphthyl which are optionally substituted with one to three substituents selected from the group consisting of C₁₋₆-alkyl, C₁₋₆-alkoxy, halogen, phenyl, di(C₁₋₆-alkyl)amino, C₂₋₈-cyclopropanecarbonyl, trifluoromethoxy and trifluoromethyl;

~~C₁₋₆-alkyl~~, C₂₋₆-alkenyl or C₂₋₆-alkynyl, which are optionally substituted with aryl, arylamino, heteroarylamino, aroyl, heteroaroyl, arylsulfonyl, C₁₋₆-alkylsulfonyl, sulfonylamino, arylthio, heteroarylthio, aryloxy, acylamino, heteroaryl or C₃₋₈-cycloalkyl, which are optionally substituted with

C₁₋₆-alkyl, C₁₋₆-alkoxy, C₁₋₆-alkylthio, aryl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, nitro, arylamino, heteroarylamino, aroyl, heteroaroyl, arylsulfonyl, heteroarylsulfonyl, C₁₋₆-alkylsulfonyl, sulfonylamino, arylthio, heteroarylthio, aryloxy, acylamino, hydroxy, amino, C₁₋₆-alkylamino, di(C₁₋₆-alkyl)amino, halogen, cyano, trifluoromethoxy or trifluoromethyl,

-NR¹³R¹⁴, in which R¹³ and R¹⁴ are both phenyl, which phenyl groups are joined with a C₁₋₄-alkylene group to form a tricyclic ring system,

-CHR¹³R¹⁴, in which R¹³ is C₁₋₆-alkyl or phenyl, and R¹⁴ is phenyl, or R¹³ and R¹⁴ are both C₁₋₆-alkyl which are joined with C₁₋₄-alkylene linkers to form a polycarbocyclic ring system, or

-CR¹³R¹⁴R¹⁵, in which R¹³, R¹⁴ and R¹⁵ are C₁₋₆-alkyl which are joined with C₁₋₄-alkylene linkers to form a polycarbocyclic ring system,

wherein

heteroaryl is a 3 to 7 membered monocyclic or a 9 to 14 membered bi- or tricyclic aromatic system containing one or more heteroatoms selected from N, O or S, which is optionally partially or fully hydrogenated;

heteroarylamino is a radical wherein a -(NH)- group is linked to a heteroaryl group;

heteroaroyl is a radical wherein a -(C=O)- group is linked to a heteroaryl group;

provided that

when X is -CS-, R¹= hydrogen, the group -Y-A-Z must not start with the radical -NH-;

when X is -CO-, the group -Y-A-Z starts with the radical -NH-, R¹= hydrogen, the remainder of the group -Y-A-Z must not be unsubstituted or C₁₋₆-alkoxy substituted phenyl, unsubstituted C₃₋₈-cycloalkyl or unsubstituted C₁₋₆-alkyl;

when X is -CO-, Y is -O-, A is -CH₂-, Z is phenyl, R¹=R²=R⁴=R⁵=R⁶=hydrogen, m=n=p=0 and q=1, R³ must not be hydrogen, ethyl, isopropyl or phenyl;

or any optical or geometric isomer or tautomeric form thereof or a pharmaceutically acceptable salt thereof.

103. (previously added) A compound of claim 102, wherein R¹ = hydrogen.

104. (previously added) A compound of claim 102, wherein X is $-C(=O)-$.

105. (previously added) A compound of claim 102, wherein A is a valence bond, methylene, ethylene or propylene.

D1 106. (amended) A compound of claim 102, wherein Z is $-R^{13}$, $-NR^{13}R^{14}$, $-CHR^{13}R^{14}$ or $-CR^{13}R^{14}R^{15}$.

107. (amended) A compound of claim 102, wherein Z is C_{1-6} -alkyl, ~~C_{3-15} -cycloalkyl~~, C_{3-15} -cycloalkenyl which are optionally substituted with C_{1-6} -alkyl, C_{1-6} -alkoxy, C_{1-6} -alkylthio, aryl- C_{1-6} -alkyl, heteroaryl- C_{1-6} -alkyl, nitro, arylamino, heteroarylamino, aroyl, heteroaroyl, arylsulfonyl, heteroarylsulfonyl, C_{1-6} -alkylsulfonyl, sulfonylamino, arylthio, heteroarylthio, aryloxy, acylamino, hydroxy, amino, C_{1-6} -alkylamino, di(C_{1-6} -alkyl)amino, halogen, cyano, trifluoromethoxy or trifluoromethyl,

Claims 108 and 109 is cancelled.

110. (previously added) A compound of claim 102, wherein Z is $-NR^{13}R^{14}$, in which R^{13} and R^{14} are both phenyl, which phenyl groups are joined with a C_{1-4} -alkylene group to form a tricyclic ring system.

111. (previously added) A compound of claim 102, wherein Z is $-CHR^{13}R^{14}$, in which R^{13} is C_{1-6} -alkyl or phenyl and R^{14} is phenyl, or R^{13} and R^{14} are both C_{1-6} -alkyl which are joined with C_{1-4} -alkylene linkers to form a polycarbocyclic ring system.

112. (previously added) A compound of claim 102, wherein Z is $-CR^{13}R^{14}R^{15}$, in which R^{13} , R^{14} and R^{15} are C_{1-6} -alkyl which are joined with C_{1-4} -alkylene linkers to form a polycarbocyclic ring system.

Claim 113 is cancelled.

DI 114. (previously added) A compound of claim 102, wherein R³ and R⁴ are both hydrogen or are both C₁₋₆-alkyl, or R³ and R⁴, together with the carbon atom to which they are connected, form a C₃₋₈-cycloalkyl ring, or one of R³ and R⁴ is hydrogen while the other is C₃₋₈-cycloalkyl substituted C₁₋₆-alkyl.

115. (previously added) A compound of claim 102, wherein R³ and R⁴, are hydrogen.

Claims 116-120 is cancelled.

121. (amended) A compound of claim 102, wherein Z is C₁₋₆-alkyl, cyclopentyl, cyclohexyl, cyclohexenyl, oxazolyl, which are optionally substituted with one to three substituents selected from the group consisting of C₁₋₆-alkyl, C₁₋₆-alkoxy, halogen, phenyl, di(C₁₋₆-alkyl)amino, C₃₋₈-cyclopropanecarbonyl, trifluoromethoxy and trifluoromethyl~~substituted with C₁₋₆-alkyl, C₁₋₆-alkoxy, C₁₋₆-alkylthio, aryl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, nitro, arylamino, heteroaryl amino, aroyl, heteroaroyl, arylsulfonyl, heteroaryl sulfonyl, C₁₋₆-alkylsulfonyl, sulfonylamino, arylthio, heteroarylthio, aryloxy, acylamino, hydroxy, amino, C₁₋₆-alkylamino, di(C₁₋₆-alkyl)amino, halogen, cyano, trifluoromethoxy or trifluoromethyl.~~

122. (amended) A compound of claim 102, wherein Z is cyclohexyl which is optionally substituted with C₁₋₆-alkyl, C₁₋₆-alkoxy, halogen, phenyl, di(C₁₋₆-alkyl)amino, C₃₋₈-cyclopropanecarbonyl, trifluoromethoxy and trifluoromethyl~~C₁₋₆-alkyl, C₁₋₆-alkoxy, C₁₋₆-alkylthio, aryl-C₁₋₆-alkyl, heteroaryl-C₁₋₆-alkyl, nitro, arylamino, heteroaryl amino, aroyl, heteroaroyl, arylsulfonyl, heteroaryl sulfonyl, C₁₋₆-alkylsulfonyl, sulfonylamino, arylthio, heteroarylthio, aryloxy, acylamino, hydroxy, amino, C₁₋₆-alkylamino, di(C₁₋₆-alkyl)amino, halogen, cyano, trifluoromethoxy or trifluoromethyl.~~

Claim 123 is cancelled.

DI 124. (previously added) A composition comprising, as an active ingredient, an effective amount of at least one compound of claim 102, together with one or more pharmaceutically acceptable carriers or diluents.

125. (previously added) The composition of claim 124 in unit dosage form, comprising from about 0.05 mg to about 1000 mg of the compound.

126. (previously added) The composition of claim 124 in unit dosage form, comprising from about 0.1 mg to about 500 mg of the compound.

127. (previously added) The composition of claim 124 in unit dosage form, comprising from about 0.5 mg to about 200 mg of the compound.

128. (previously added) A method of treating overweight or obesity comprising administering to a subject in need thereof a composition of claim 124.

129. (amended) A method of treating disorders and diseases related to overweight or obesity comprising administering to a subject in need thereof a composition of claim 124, the compound of claim 102.

130. (previously added) The compound of claim 102, wherein heteroaryl is selected from furyl, thienyl, pyrrolyl, oxazolyl, thiazolyl, imidazolyl, isoxazolyl, isothiazolyl, 1,2,3-triazolyl, 1,2,4-triazolyl, pyranlyl, pyridyl, pyridazinyl, pyrimidinyl, pyrazinyl, 1,2,3-triazinyl, 1,2,4-triazinyl, 1,3,5-triazinyl, 1,2,3-oxadiazolyl, 1,2,4-oxadiazolyl, 1,2,5-oxadiazolyl, 1,2,3-thiadiazolyl, 1,2,4-thiadiazolyl, 1,2,5-thiadiazolyl, 1,3,4-thiadiazolyl, tetrazolyl, thiadiazinyl, indolyl, isoindolyl, benzofuryl, benzothieryl, benzothiophenyl, indazolyl, benzimidazolyl, benzthiazolyl,

benzothiazolyl, benzisoxazolyl, purinyl, quinazolinyl, quinoliziny, quinoliny, isoquinoliny, quinoxaliny, naphthyridiny, pteridinyl, carbazolyl, azepiny, diazepiny, acridiny, pyrroliny, pyrazoliny, indoliny, pyrrolidinyl, piperidinyl, piperazinyl, azepiny, diazepiny, morpholiny, thiomorpholiny, oxazolidiny, oxazoliny, oxazepiny, aziridiny and tetrahydrofurany

131. (previously added) The compound of claim 102, wherein heteroaryl is selected from furyl, thienylcarbonyl, pyridoyl, oxazolylcarbonyl, benzofurylcarbonyl, benzimidazolylcarbonyl, pyrroliny, azepiny, pyrrolylcarbonyl, thiazolylcarbonyl, imidazolylcarbonyl, isoxazolylcarbonyl, isothiazolylcarbonyl, 1,2,3-triazolylcarbonyl, 1,2,4-triazolylcarbonyl, pyranylcarbonyl, pyridaziny, pyrimidinylcarbonyl, pyraziny, 1,2,3-triaziny, 1,2,4-triaziny, 1,3,5-triaziny, 1,2,3-oxadiazolylcarbonyl, 1,2,4-oxadiazolylcarbonyl, 1,2,5-oxadiazolylcarbonyl, 1,2,3-thiadiazolylcarbonyl, 1,2,4-thiadiazolylcarbonyl, 1,2,5-thiadiazolylcarbonyl, 1,3,4-thiadiazolylcarbonyl, tetrazolylcarbonyl, thiadiaziny, indolylcarbonyl, isoindolylcarbonyl, benzothienylcarbonyl, benzothiophenylcarbonyl, indazolylcarbonyl, benzthiazolylcarbonyl, benzisothiazolylcarbonyl, benzisoxazolylcarbonyl, puriny, quinazolinylcarbonyl, quinoliziny, quinoliny, isoquinoliny, quinoxaliny, naphthyridiny, pteridinylcarbonyl, carbazolylcarbonyl, azepiny, diazepiny, acridiny, pyrroliny, pyrazoliny, indoliny, piperidinylcarbonyl, piperazinylcarbonyl, diazepiny, morpholiny, thiomorpholiny, oxazolidiny, oxazoliny, oxazepiny, aziridiny and tetrahydrofurany carbonyl.

132. (previously added) The compound of claim 102, wherein heteroarylamino is selected from furanylamino, thienylamino, pyridylamino, oxazolylamino, benzofurylamino, benzimidazolylamino, pyrroliny, azepiny, pyrrolylamino, thiazolylamino, imidazolylamino, isoxazolylamino, isothiazolylamino, 1,2,3-triazolylamino, 1,2,4-triazolylamino, pyranylamino, pyridaziny, pyrimidinylamino, pyraziny, 1,2,3-triaziny, 1,2,4-

D' triazinylamino, 1,3,5-triazinylamino, 1,2,3-oxadiazolylamino, 1,2,4-oxadiazolylamino, 1,2,5-oxadiazolylamino, 1,2,3-thiadiazolylamino, 1,2,4-thiadiazolylamino, 1,2,5-thiadiazolylamino, 1,3,4-thiadiazolylamino, tetrazolylamino, thiadiazinylamino, indolylamino, isoindolylamino, benzothienylamino, benzothiophenylamino, indazolylamino, benzthiazolylamino, benzisothiazolylamino, benzisoxazolylamino, purinylamino, quinazolinylamino, quinolizinylamino, quinolinylamino, isoquinolinylamino, quinoxalinylamino, naphthyridinylamino, pteridinylamino, carbazolylamino, azepinylamino, diazepinylamino, acridinylamino, pyrazolinylamino, indolinylamino, pyrrolidinylamino, piperidinylamino, piperazinylamino, diazepinylamino, morpholinylamino, thiomorpholinylamino, oxazolidinylamino, oxazolinylamino, oxazepinylamino, aziridinylamino and tetrahydrofuranylamino.
